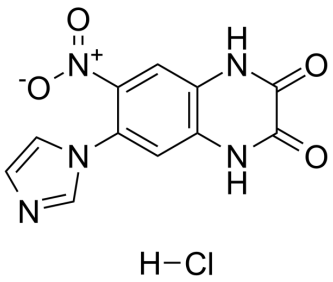
YM90K

Cat. No.:	HY-15071
CAS No.:	154164-30-4
Molecular Formula:	$C_{11}H_8ClN_5O_4$
Molecular Weight:	309.67
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	YM90K is a potent and selective AMPA receptor antagonist with a K_i of 84 nM. YM90K is less potent in inhibiting kainate (K_i of 2.2 μM) and NMDA (K_i of 37 μM) receptors. YM90K has neuroprotective actions[1].
IC_{50} & Target	Ki: 84 nM (AMPA receptor), 2.2 μM (Kainate receptor) and 37 μM (NMDA receptor)[1]
In Vitro	YM90K co-injected with AMPA or kainate into the rat striatum protect cholinergic neurons against AMPA- or kainate-induced neurotoxicity[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	YM90K shows potent suppressive activity against audiogenic seizure in DBA/2 mice; ED_{50} values of YM90K against tonic seizure is 2.54 mg/kg (i.p.). The duration of the anticonvulsant effects of YM90K is 30 min[1]. In a global ischemia model, YM90K (15 mg/kg i.p.) significantly prevents the delayed neuronal death in the hippocampal CA1 region in Mongolian gerbils when administered 1 h after 5-min ischemia. The therapeutic time window for the neuroprotective effect of YM90K (30 mg/kg i.p.) is 6 h[1]. In a focal ischemia model, YM90K (30 mg/kg i.v. bolus+10 mg/kg/h for 4 h) reduces the volume of ischemic damage in the cerebral cortex in F344 rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. M Shimizu-Sasamata, et al. YM90K: pharmacological characterization as a selective and potent alpha-amino-3-hydroxy-5-methylisoxazole-4-propionate/kainate receptor antagonist. J Pharmacol Exp Ther. 1996 Jan;276(1):84-92.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA